For rving Office use only
International Application No.
International Filing Date
Name of receiving Office and "PCT International Application"

REQUEST	International Filing Da	te
The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.		ice and "PCT International Application"
	(if desired) (12 characte	file reference Pers maximum) 2950.07WO01
BOX NO. I TITLE OF INVENTION OPTICAL MATERIALS WITH SELECTED INDE	X-OF-REFRACTI	ON
Box No. II APPLICANT This person	n is also inventor	·
Name and address: (Family name followed by given name; for a legal ent The address must include postal code and name of country. The country of t Box is the applicant's State (that is, country) of residence if no State of residen	he address indicated in this	Telephone No. (510) 668-5000
NanoGram Corporation 49040 Milmont Drive		Facsimile No. (510) 668-5009
Fremont, California 94538 United States of America		Teleprinter No.
onited diates of America		Applicant's registration No. with the Office
State (that is, country) of nationality: US	State (that is, country) US	of residence:
This person is applicant for the purposes of: all designated States all designated the United S		the United States of America only the States indicated in the Supplemental Box
Box No. III FURTHER APPLICANT(S) AND/OR (FURT	HER) INVENTOR(S)	
Name and address: (Family name followed by given name; for a legal ent The address must include postal code and name of country. The country of t Box is the applicant's State (that is, country) of residence if no State of residen BRYAN, Michael A. 708 Blossom Hill Road, Suite 111 Los Gatos, California 95032 United States of America	he address indicated in this ce is indicated below.)	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office
State (that is, country) of nationality: US	State (that is, country) US	of residence:
This person is applicant for the purposes of: all designated states all designated the United States	d States except tates of America	the United States of America only the States indicated in the Supplemental Box
Further applicants and/or (further) inventors are indicated	on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTATIVE	; OR ADDRESS FOR	CORRESPONDENCE
The person identified below is hereby/has been appointed to act of the applicant(s) before the competent International Authorities	on behalf s as:	agent common representative
Name and address: (Family name followed by given name; for a legal ent The address must include postal code and name of c		Telephone No. (612) 349-5746
Peter S. DARDI, Ph.D. PATTERSON, THUENTE, SKAAR & CHRIS	STENSEN, P.A.	Facsimile No. (612) 349-9266
4800 IDS Center 80 South Eighth Street	V.	Teleprinter No.
Minneapolis, Minnesota 55402-2100 United States of America		Agent's registration No. with the Office 39,650
Address for correspondence: Mark this check-box where space above is used instead to indicate a special address to	no agent or common rep which correspondence s	presentative is/has been appointed and the should be sent.

	2
Sheet No.	

Continuation of Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)				
If none of the following s	ub-boxes is used, this sheet should n	ot be included in the re	quest.	
The address must include posts Box is the applicant's State (the KAMBE, Nobuyul		This person is: applicant only applicant and inventor		
840 Hobart Stree Menlo Park, Calif			inventor only (If this check-box	
United States of A			is marked, do not fill in below.)	
			Applicant's registration No. with the Office	
State (that is, country) of n	ationality:	State (that is, country) of residence:	
This person is applicant for the purposes of:	all designated all designate States all designate States	ed States except States of America	the United States the States indicated in the Supplemental Box	
The address must include post	o name followed by given name; for a legal en al code and name of country. The country of at is, country) of residence if no State of resider	the address indicated in this	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office	
State (that is, country) of n	ationality:	State (that is, country	of residence:	
This person is applicant for the purposes of:		ed States except States of America	the United States of America only the States indicated in the Supplemental Box	
The address must include post	y name followed by given name; for a legal en al code and name of country. The country of at is, country) of residence if no State of resider	the address indicated in this	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office	
State (that is, country) of n	ationality:	State (that is, country	of residence:	
This person is applicant for the purposes of:		ed States except States of America	the United States of America only the States indicated in the Supplemental Box	
The address must include post	y name followed by given name; for a legal en al code and name of country. The country of at is, country) of residence if no State of residen	the address indicated in this	This person is: applicant only applicant and inventor inventor only (If this check-box is marked, do not fill in below.) Applicant's registration No. with the Office	
State (that is, country) of n	ationality:	State (that is, country,	l of residence:	
This person is applicant for the purposes of:		ed States except States of America	the United States the States indicated in of America only the Supplemental Box	
Further applicants a	and/or (further) inventors are indicated	on another continuation	sheet.	

graph or a first graph of	Sheet No3	4
Box No. V DESIGNATION OF STA		at least one must be marked.
The following designations are hereby marketing the Regional Patent	ade under Rule 4.9(a):	
•	CM Cambia MR Manager I C I and a MAN	M. 1. 1 M. 11
SL Sierra Leone, SZ Swaziland State which is a Contracting S	, GM Gambia, KE Kenya, LS Lesotho, MW i, TZ United Republic of Tanzania, UG Uganda, a tate of the Harare Protocol and of the PCT (if of	ZM Zambia, ZW Zimbabwe, and any other her kind of protection or treatment desired,
	a, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, I likistan, TM Turkmenistan, and any other State w CT	
DK Denmark, ES Spain, FI Fir MC Monaco, NL Netherlands, the European Patent Convention		ece, IE Ireland, IT Italy, LU Luxembourg, other State which is a Contracting State of
GA Gabon, GN Guinea, GQ E TD Chad, TG Togo, and any of	so, BJ Benin, CF Central African Republic, CG Equatorial Guinea, GW Guinea-Bissau, ML Malther State which is a member State of OAPI and a ed, specify on dotted line)	i, MR Mauritania, NE Niger, SN Senegal, Contracting State of the PCT (if other kind
National Patent (if other kind of protect	ction or treatment desired, specify on dotted line):	
AE United Arab Emirates		NZ New Zealand
AG Antigua and Barbuda	HR Croatia	
	X HU Hungary	
AM Armenia		PL Poland
AT Austria	X IL Israel	PT Portugal
	X IN India	
X AZ Azerbaijan		RU Russian Federation
RA Rosnia and Herzegovina	X JP Japan	
BB Barbados	KE Kenya	
	KG Kyrgyzstan	
		SG Singapore
BY Belarus		SI Slovenia
	KR Republic of Korea	
K CA Canada	KZ Kazakhstan	
CH & LI Switzerland and Liechtenst	_	TJ Tajikistan
CN China		TM Turkmenistan
CO Colombia	LR Liberia	X TN Tunisia
	Liberta	TR Turkey
CU Cuba		TT Trinidad and Tobago
Z CZ Czech Republic		
DE Germany		TZ United Republic of Tanzania
DK Denmark	/ ****	UA Ukraine
	MD Republic of Moldova	
DM Dominica	•	
DZ Algeria		
EC Ecuador		VIZ Unbalata
EE Estonia	•	UZ Uzbekistan
ES Spain		VN Viet Nam
FI Finland		YU Yugoslavia
GB United Kingdom	MWMalawi	
GD Grenada	MX Mexico	
GE Georgia		ZW Zimbabwe
GH Ghana	🔀 NO Norway	

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time limit.)

Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:

Supplemental Box

If the Supplemental Box is not used, this sheet should not be included in the request.

- If, in any of the Boxes, except Boxes Nos. VIII(i) to (v) for which a special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No..." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:
- (i) if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;
- (ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;
- (iii) if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. II" and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;
- (iv) if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;
- (v) if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;
- (vi) if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.
- If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

CONTINUATION OF BOX NO. IV:

ALEXANDER, Wm. Larry; BAXTER, Kimberly K.; BONDI, Michael A.; CHADWICK, Eric H.; CHRISTENSEN, Douglas J.; DARDI, Peter S.; HERBERT, Curtis B.; OLSEN, David A.; ONDERICK, Paul; PATTERSON, James H.; PEDERSEN, Brad; SKAAR, Randall T.; THUENTE, John F.; ULBRICH, Scott G., all of...

PATTERSON, THUENTE, SKAAR & CHRISTENSEN, P.A. 4800 IDS Center 80 South Eighth Street Minneapolis, Minnesota 55402-2100 United States of America

and

KLEINSMITH, David NanoGram Corporation 49040 Milmont Drive Fremont, California 94538 United States of America Telephone: (510) 668-5000 Facsimile: (510) 668-5009

Sheet No	5			

Box No. VI PRIORITY	CLAIM						
The priority of the following	g earlier application(s) is here	eby claimed:					
Filing date	Number	v	Where earlier application is:				
of earlier application (day/month/year)	of earlier application	national application: country	regional application:* regional Office	* international application: receiving Office			
item (1) 17 January 2001 17/01/01	60/262,274	us	,				
item (2) 17 January 2001 17/01/01	60/262,273	US					
item (3)							
item (4)							
item (5)							
Further priority claims	s are indicated in the Supplem	ental Box.	<u> </u>	<u> </u>			
Box No. VII INTERNA Choice of International Sinternational search, indica ISA / US	tion is an ARIPO application, is Member of the World Trade Of Trad	THORITY itwo or more International So-letter code may be used): that search (if an earlier so	party to the Paris Conve earlier application was fi	competent to carry out the			
Box No. VIII DECLARA	ATIONS						
	s are contained in Boxes Nos cate in the right column the nu			Number of declarations			
Box No. VIII (i)	Declaration as to the ident	ity of the inventor		:			
Box No. VIII (ii)		Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent :					
Box No. VIII (iii)		licant's entitlement, as at t of the earlier application	he international filing	:			
Box No. VIII (iv)	Declaration of inventorsh United States of America	ip (only for the purposes o	f the designation of the	:			
Box No. VIII (v)	Declaration as to non-pre	judicial disclosures or exce	eptions to lack of novelty	:			

		c
heet	No	6

Box No. IX CHECK LIST; LANGUAGE (OF FILING	
This international application contains: (a) the following number of sheets in paper form:	This international application is accompanied by the following item(s) (mark the applicable check-boxes below and indicate in right column the number of each item): 1. 1. fee calculation sheet	Number of items
request (including declaration sheets) : 6	2. original separate power of attorney	
description (excluding	3. original general power of attorney	•
sequence listing part) : 47	4. Copy of general power of attorney; reference number,	•
claims : 6	if any:	:
abstract : 1 drawings : 11	5. statement explaining lack of signature	:
Sub-total number of sheets: 71	6. priority document(s) identified in Box No. VI as	•
sequence listing part of description (actual number	item(s):	
of sheets if filed in paper	(language):	
form, whether or not also filed in computer readable form; see (b) below) 0	8. separate indications concerning deposited microorgani or other biological material	sm :
Total number of sheets : 71	9. sequence listing in computer readable form (indicate als and number of carriers (diskette, CD-ROM, CD-R or ot	her))
(b) sequence listing part of description filed in computer readable form	(i) copy submitted for the purposes of international under Rule 13ter only (and not as part of the	search
(i) only (under Section 801(a)(i))	international application) (ii) [] (only where check-box (b)(i) or (b)(ii) is marked	i in left
(ii) ☐ in addition to being filed in paper form (under Section 801(a)(ii))	column) additional copies including, where app the copy for the purposes of international search	licable,
Type and number of carriers (diskette, CD-ROM, CD-R or other) on which the	Rule 13ter	:
sequence listing part is contained (additional	(iii) together with relevant statement as to the identity of the copy or copies with the sequence listing p	art
copies to be indicated under item 9(ii), in right column):	mentioned in left column	:
	10. other (specify): Transmittal Letter & Return Posto	;ar.q.: 2
Figure of the drawings which should accompany the abstract: 14	Language of filing of the international application: English	
Next to each signature, indicate the name of the person signature. Peter S. DARDI, Ph.D. (Reg. 39,650)	ming and the capacity in which the person signs (if such capacity is not obvious f	rom reading the request).
	For receiving Office use only	
Date of actual receipt of the purported international application:		2. Drawings:
Corrected date of actual receipt due to later timely received papers or drawings complete the purported international application:		
4. Date of timely receipt of the required corrections under PCT Article 11(2):		not received:
5. International Searching Authority (if two or more are competent): ISA /	6. Transmittal of search copy delayed until search fee is paid	
	For International Bureau use only	
Date of receipt of the record copy by the International Bureau:		

FEE CALCULATION SHEET

Applicant's or agent's

NanoGram Corporation

3. INTERNATIONAL FEE

5. TOTAL FEES PAYABLE

MODE OF PAYMENT authorization to charge

Cheque

CALCULATION OF PRESCRIBED FEES 1. TRANSMITTAL FEE International search to be carried out by

file reference **Applicant**

This sheet is i	not t of and does not cou	nt as a sheet of the inter. onal applicati	on.
PC'	Γ	For receiving Office t	ise only
FEE CALCULAT Annex to the		International Application No.	
plicant's or agent's reference 2	950.07WO01	Date stamp of the receiving Office	
plicant anoGram Corporation			
LCULATION OF PRESCRIBE	D FEES		·
TRANSMITTAL FEE			·
SEARCH FEE International search to be carried of (If two or more International Searchin, search, indicate the name of the Author	Authorities are competent to carr	v out the international	
INTERNATIONAL FEE Basic Fee			
Where item (b) of Box No. IX app Where item (b) of Box No. IX doe		er of sheets }	
bl first 30 sheets	L	\$382.00 ы	·
b2 41 number of sheets	$x = \frac{\$9.00}{\text{fee per sheet}} = $	\$369.00 b2	
in excess of 30 additional component (only i	f sequence listing part of description under Section 801(a)(i),	ription	
400	x =	\$0 b3	
Add amounts entered at b1, b2 and	=	\$751.00 B	Ì
Designation Fees The international application cont			
5	\$82.00	_ \$410.00 D	
number of designation fees payable (maximum 5)	amount of designation fee		
Add amounts entered at B and D as	nd enter total at I	\$1,161.00 []	
(Applicants from certain States a international fee. Where the applicate to be entered at I is 25% of the sum	re entitled to a reduction of nt is (or all applicants are) so entit of the amounts entered at B and	75% of the tled, the total d D.)	
FEE FOR PRIORITY DOCUMEN		\$30.00 P	
TOTAL FEES PAYABLE Add amounts entered at T, S, I and	P, and enter total in the TOTA		
The designation fees are not pai			
ODE OF PAYMENT			
authorization to charge deposit account (see below)	postal money order	cash coupons	,
cheque	bank draft	revenue stamps other (spec	ify):
THORIZATION TO CHARGE	(OR CREDIT) DEPOSIT AC	COUNT	

AUTHORIZATION TO CHARGE (OR CREDIT) DEPOSIT ACC

4. FEE FOR PRIORITY DOCUMENT (if applicable)

(This mode of payment may not be available at all receiving Offices)

Authorization	to	charge	the total	fees	indicated abov	e.

(This check-box may be marked only if the conditions for deposit accounts of the receiving Office so permit) Authorization to charge any deficiency or credit any overpayment in the total fees indicated above.

ı	\neg	Authorization to charge the fee for priority document
		remoration to our Bo me too for priority document

Receiving Office: RO/_ Deposit Account No.: _ 16-0631

Date: 17 January 2002 Name: Peter S. DARDI, Ph.D.

Signature: